



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,860	09/29/2000	MARTIN M. BARRERA	NOVE10001000	9366
22891	7590	09/19/2006	EXAMINER	
DELIO & PETERSON 121 WHITNEY AVENUE NEW HAVEN, CT 06510			KIM, CHRISTOPHER S	
			ART UNIT	PAPER NUMBER
			3752	

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/675,860

Applicant(s)

BARRERA ET AL.

Examiner

Christopher S. Kim

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-10, 12-17, 19-21 and 26-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-10, 12-17, 19-21 and 26-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 24, 2006 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 1-5, 7-10, 12-17, 19-21, 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gwyn (4,397,422) in view of Holt (5501,397).

Gwyn discloses an apparatus comprising: an inlet 17; a throat region 19; a first aperture 20 (aperture 20 for the white colorant); a second aperture 20 (aperture 20 for the green colorant); a third aperture 20 (for the red colorant); an exit nozzle 15.

Gwyn does not disclose a chemical vapor deposition chamber where the apparatus is in fluid communication with the chamber.

Holt discloses chamber (spray booth No. 1, No. 2 and No. 3 in figures 1 and 5) having a spray gun 88 attached to the spray booth at ceiling 94 and in communication with the chamber. It would have been obvious to a person having ordinary skill in the

art at the time of the invention to have provided a chamber to the device of Gwyn as taught by Holt to reduce dust contamination (Farnan, 5,456,023, column 3, lines 25-35).

The paint sprayed, as in the spray booth of Holt, is a chemical in vapor fluid form and is deposited on the painted surface. Therefore, the chamber literally meets the definition of "chemical vapor deposition chamber."

In claim 13, the exit nozzle is considered to be the portion of throat region 19 downstream of aperture 20.

Claims 1, 13 and 28 recite "adapted to" which merely requires the ability to so perform.

Claims 1, 13 and 28 recite "configured to" which merely requires the ability to so perform.

Claims 1, 13 and 28 recite "for" which merely recites the manner in which a claimed apparatus is intended to be employed and does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

Claim 5 further defines the first and second chemical vapor deposition dopants comprising TEOS. In claim 1, the first and second chemical vapor deposition dopants are not positively recited. The dopants are merely recited as intended use of the first and second aperture of the throat region of the apparatus being claimed.

With respect to claims 2 and 14, Gwyn in view of Holt discloses the limitations of the claimed invention with the exception of the angle being forty to sixty degrees. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided an angle of forty to sixty degrees for optimization

dependent of application criteria, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

With respect to claim 12, Gwyn in view of Holt discloses the limitations of the claimed invention with the exception of the angle being twenty to forty degrees. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided an angle of twenty to forty degrees for optimization dependent of application criteria, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Response to Arguments

4. Applicant's arguments filed July 24, 2006 have been fully considered but they are not persuasive.

Applicant argues that Gwen is non-analogous art and asserts that "chemical vapor deposition" should be interpreted in view of the specification. Applicant's specification fails to limit the definition of term "chemical vapor deposition" and Gwen is analogous art in that the deposition of paint meets the literal definition of "chemical vapor deposition." Paint is a chemical. One definition of vapor is mist (fine spray). Gwen's device deposits/sprays paint on a target.

Applicant argues that Gwen does not disclose differing temperatures within the inlet chamber, throat region and outlet chamber. Applicant's argument does not appear to be commensurate in scope with the claimed invention.

Applicant argues that Gwyn does not disclose an exit nozzle configured to introduce atomized chemical vapor deposition fluid and carrier fluid in a CVD chamber. Gwyn's device is configured to provide a spray/mist. It has the ability to provide the spray/mist to a chamber.

Applicant's argues that Gwyn's exit nozzle does not have the same diameter as the throat region. The upstream end of exit nozzle 15, where it is connected to throat region 19, has the same diameter as throat region 19.

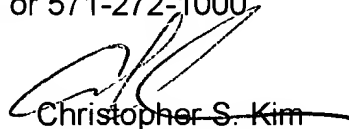
Applicant argues that Gwyn does not disclose TEOS. TEOS is not a positively claimed limitation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (571) 272-4905. The examiner can normally be reached on Monday - Thursday, 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (571) 272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Christopher S. Kim
Primary Examiner
Art Unit 3752

CK